



WPIL - (C) Derwent Info. 1998

AN - 82-17113E [09]

XA - C82-E17113

TI - Diaphragm for electrolytic cell - has mat of amorphous ***silica***
or zirconium oxide ***fibres*** with fluorocarbon polymer binder

DC - A85 E36 J03 X25

PA - (ALKU) AKZO NV

NP - 1

NC - 001

PN - NL8003824 A 820201 DW8209

PR - 80NL-003824 800702

IC - C25B-013/04

AB - NL8003824 Diaphragm for electrolysis cell comprises a mat of inorganic ***fibres*** and a fluorohydrocarbon polymer binder. The mat is composed of amorphous SiO_2 or ArO_2 ***fibres*** and the pores of the bonded mat are filled with amorphous hydrated SiO_2 or ZrO_2 such that the diaphragm has a hydrodynamic permeability of less than $30 \times 10^{-10} \text{ m}^3/\text{N} \cdot \text{sec.}$ and an electrical resistance factor (= the ratio of the ohmic resistance of the electrolyte-saturated diaphragm to that of an electrolyte layer of the same thickness as the diaphragm) of less than 10. In a pref. diaphragm, the hydrodynamic permeability is less than $0.3 \times 10^{-10} \text{ m}^3/\text{N} \cdot \text{sec.}$ and the electrical resistance factor is less than 5.

The diaphragms have controlled permeability, good conductivity and good ion conductivity, good resistance to electrolytic media and good mechanical strength, and give reduced energy consumption in the cell.
(11pp)

MC - A04-E10 A12-E09 E31-P03 E35-L J03-B03 X25-R01C

UP - 8209



Application No: GB 9822569.1
Claims searched: 1-14

Examiner: Alex Littlejohn
Date of search: 19 February 1999

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.Q): B1X; D1R (RBD, RBH, RDC, RDD, RDE, RFA)

Int Cl (Ed.6): B01D; C08J; C25B; H01M

Other: Online: WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 1599077 (Yuasa) see whole document	1-5,10
A	WPI Abstract Accession No 82-17113E[09] & NL 8003824 A (Akzo) 01.02.82 see abstract	-

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.
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A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the filing date of this invention.
E Patent document published on or after, but with priority date earlier than, the filing date of this application.